

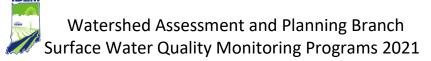
## Watershed Assessment and Planning Branch Surface Water Quality Monitoring Programs 2021

Probabilistic Monitoring	2021	Parameters
Watershed or Waterbody Name(s)	Patoka River	E. coli, Aluminum, Antimony,
Hydrologic Unit Code(s)	05120209	Arsenic, Calcium, Cadmium,
		Chromium, Copper, Lead,
		Magnesium, Nickel, Selenium,
		Silver, Zinc, Alkalinity, Total Solids,
		Dissolved Solids, Total Suspended
		Solids, Sulfate, Chloride, Hardness,
		TKN, Ammonia- Nitrogen,
		Nitrate/Nitrite, Total Phosphorous,
		TOC, Cyanide-Total, Cyanide-Weak
		Acid Dissociable, Chemical Oxygen
		Demand, Dissolved Oxygen, D.O.
		Saturation, pH, Specific
		Conductance, Temperature,
		Turbidity, Fish, Macroinvertebrates,
		Diatoms, Periphyton, Seston,
		Habitat, continuous Dissolved
		Oxygen and Orthophosphate (@
		subset of 18 target sites, minimum 2
		weeks)

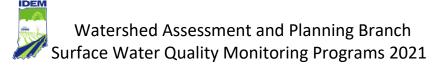


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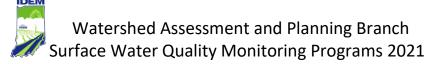
Reference Site Monitoring	Year: 2021	Parameters	
Stream/River or Watershed(s)	05120108 Middle Wabash-Little	Aluminum, Antimony, Arsenic,	
	Vermillion (n=3); 05120110 Sugar (n=3);	Calcium, Cadmium, Chromium,	
	05120111 Middle Wabash-Busseron	Copper, Lead, Magnesium, Nickel,	
	(n=3); 05120203 Eel (n=3); Deer Creek	Selenium, Silver, Zinc, Alkalinity,	
	(n=2); Tippecanoe R.; 05120202 Little Mill	Total Solids, Dissolved Solids, Total	
	Creek; 05120207 Muscatatuck - Vernon	Suspended Solids, Sulfate, Chloride,	
	Fork Muscatatuck (n=2, also in	Hardness, TKN, Ammonia-	
	Watershed Characterization Project);	Nitrogen, Nitrate/Nitrite, Total	
	Otter Cr.; Sugar Cr	Phosphorous, TOC, Chemical	
		Oxygen Demand, Dissolved Oxygen,	
		D.O. Saturation, pH, Specific	
		Conductance, Temperature, Turbidity, Fish, Macroinvertebrates,	
		Periphyton, Seston, Chlorophyll <i>a</i> ,	
		Habitat	
Fixed Station Monitoring	Parameters		
	CHEMISTRY (dissolved vs. total metals at 12 selected sites geographically		
	representative): Alkalinity, Hardness, Calcium, Magnesium, Ammonia-N,		
	Nitrate+Nitrite-N, Nitrogen-TKN, Phosphorous-Total, COD, TOC,		
	Total, Solids-Suspended, Solids-Dissolved, Fluoride, Chloride, Sulfate, Cyanide-		
	Total, Cyanide-Free, Cyanide-Amenable, Arsenic (μg/I), Cadmium (μg/I),		
165 sites throughout all 9 watersheds:	Chromium-Total (μg/l), Copper(μg/l), Iron (μg/l), Lead (μg/l), Manganese (μg/l),		
Divided into 16 routes	Nickel (μg/I), Potassium (μg/I), Sodium (μg/I), Zinc (μg/I), E. coli,		
sampled monthly	FIELD: Turbidity, DP, pH, Temperature, Specific Conductance, Weather coding		
Sumpled monthly	ORGANICS/PESTICIDES (select sites, drinking water intakes):		
	Hexachlorocyclopentadiene, Desethylatrazine, Desisipropylatrazine,		
	Hexachlorobenzene, Simazine, Atrazine, Cloazone, Pentachlorophenol, Lindane,		
	Acetochlor, Alachlor, Heptachlor, Metolachlor, Chlorpyrifos, Cyanazine,		
	Penimethalin, Heptachlor Epoxide, Ocychlordane, Gamm-Chlordane, Alpha-		
	Chlordane, Trans-Nonachlor, endrin, Cis-Nonachlor, P,P'-DDT, Bis(2-		
	Ethylhexyl)adipate, Methoxychlor, Bis(-Ethylhexyl)phthalate, Benzoapyrene,		
	Trifluralin, Aldrin, Dieldrin, Propachlor		



Watershed Characterization Studies	Year: 2021	Parameters
Watershed or Waterbody Name(s)	Vernon Fork Muscatatuck River	CHEMISTRY monthly, Alkalinity (as CaCO3), Solids, Total Residue (TS),
Hydrologic Unit Code(s)	0512020707	Solids, Nonfilterable Residue (TSS) Solids, Filterable Residue (TDS), Sulfate (Dissolved), Chloride, Hardness (as CaCO3), Nitrogen, as Ammonia, Nitrogen, Kjeldahl (TKN), Nitrogen, Nitrate- nitrite, Phosphorous, Total Organic Carbon (TOC), Chemical Oxygen Demand, Calcium, Magnesium  FIELD: pH, DO, D.O saturation, Temperature, Turbidity, and Specific Conductance. E. coli will be done 5X Biological: Fish, Macroinvertebrates, Habitat
Fish Tissue Monitoring	Year: 2021	Parameters
Watershed or Waterbody Name(s)	West Fork White River and Patoka River basins. Sites TBD.	Percent Moisture, Percent Lipid, PCBs, Organochlorine-Pesticides, Cadmium, Selenium, Lead, Total Mercury, Methylmercury,
Hydrologic Unit Code(s)		Polychlorinated Biphenyl, and Perand Polyfluoroalkyl substances



Toxic Algae Monitoring	Year: 2021	Parameters
Waterbody Name(s)	Designated swimming beaches in the	Cyanobacterial Identification and
	lakes at the following state owned parks	Cell Enumeration, Microcystin,
	or managed recreation areas:	Cylindrospermopsin, Anatoxin a,
	Potato Creek, Pokagon (2 beaches), Chain-	and Saxotoxin toxin analysis
	o-Lakes, Mississinewa, Salamonie,	
	Oubache, Raccoon Lake (aka Cecil M.	
	Harden Reservoir), Monroe (2 beaches),	
	Hardy, Whitewater, Brookville (2 beaches),	
	Deam Lake, Starve Hollow, Cagles Mill, Ft.	
	Harrison State Park Dog Park Lake	
Special Project	Year: 2021	Parameters
Coolwater Stream Monitoring	90 sites (TBD) with Thermologgers	Aluminum, Antimony, Arsenic,
	45/90 sites sampled for chemical,	Calcium, Cadmium, Chromium,
	biological, and physical/habitat	Copper, Lead, Magnesium, Nickel,
	parameters.	Selenium, Silver, Zinc, Alkalinity,
		Total Solids, Dissolved Solids, Total
		Suspended Solids, Sulfate, Chloride,
		Hardness, TKN, Ammonia-
		Nitrogen, Nitrate/Nitrite, Total
		Phosphorous, TOC, Chemical
		Oxygen Demand, Dissolved Oxygen,
		D.O. Saturation, pH, Specific
		Conductance, Continuous
		Temperature taken every 30
		minutes and downloaded every
		other month, Turbidity, Fish,
		Macroinvertebrates, Habitat



Performance Measure Monitoring	Year: 2021	Parameters
Watershed or Waterbody Name(s)	Vestal Branch – Indian Creek, Prairie	CHEMISTRY may vary from year to
	Creek, Big Pine Creek Ditch – Big Pine	year depending on the impaired
	Creek, Lafferty Ditch – Eel River,	listing, BMPs implemented, critical
	Thunderbird Pond – Turman Creek, Town	areas, & land use. Ammonia-
	of Dodds Bridge – Turman Creek.	Nitrogen, Total Phosphorus,
Hydrologic Unit Code(s)	051401010201, 051201070305,	Nitrate/Nitrite, Total Kjeldahl
	051201080402, 051202030805,	Nitrogen, Dissolved Solids,
	051201111201, 051201111203.	Suspended Solids. FIELD: pH, DO,
		D.O. saturation, temperature,
		turbidity, and specific conductance.
		<i>E. coli</i> will be done 5X if necessary.
		Biological: Fish,
		Macroinvertebrates, Habitat